ABSTRACT

A process for catalytic dehydrogenation of a dehydrogenatable hydrocarbon process stream to the corresponding olefin or olefins, the process comprising contacting the dehydrogenatable hydrocarbon process stream under dehydrogenation conditions with a mesoporous zeotype catalyst having an intra-crystalline, non-crystallographic mesopore system and a mesopore volume of the zeotype crystals above 0.25 ml/g and comprising at least one element belonging to Groups 5-14 in the Periodic Table of the Elements (new notation).

The invention also comprises a catalyst for use in the above process.